

IN THE CLAIMS:

Please amend the claims to read as follows:

-- 1-13 (cancelled):

¹
~~14~~ (currently amended) A nanocomposite comprising:

a diamagnetic core;

a thin layer of magnetic material formed on the diamagnetic core;

a passivating layer of diamagnetic material formed on the layer of magnetic material.

³ ~~15~~. (original) The nanocomposite of claim ¹~~14~~, wherein:

the diamagnetic core is a material from the group consisting of gold, silver, copper, and platinum;

the magnetic material is a material from the group consisting of iron and cobalt and alloys containing iron and/or cobalt;

the passivating layer is a material from the group consisting of gold, silver, platinum, and copper, and alloys containing these materials.

⁵ ~~16~~. (previously amended) The nanocomposite of claim ¹~~14~~, comprising:

a gold core;

a thin layer of iron formed on the gold core;

a passivating layer of gold on the layer of iron.

⁷ ~~17~~. (previously amended) The nanocomposite of claim ¹~~14~~, produced with a reverse micelle synthesis technique.

⁹ ~~18~~. (previously amended) The nanocomposite of claim ¹~~14~~, synthesized using cetyltrimethylammonium bromide, n-butanol, octane and aqueous reactants.

¹⁷ ~~19~~. (previously amended) Ferrofluids made with the nanocomposite of claim ¹~~14~~.

¹⁹ ~~20~~. (previously amended) Granular GMR materials made with the nanocomposite of

claim ~~14~~.

21. (previously amended) Inductor materials made with the nanocomposite of claim

~~14~~.

²³
~~22~~. (previously amended) Storage media made with the nanocomposite of claim ~~14~~.

²⁵~~23~~. (previously amended) Giant magnetoresistance sensors made with the nanocomposite of claim ~~14~~.

²⁷~~24~~. (previously amended) Directed drug delivery agents made with the nanocomposite of claim ~~14~~.

²⁹~~25~~. (previously amended) Agents for targeted sensing for *in vivo* applications made with the nanocomposite of claim ~~14~~.

¹¹ ~~26~~. (original) The nanocomposite of claim ~~14~~, wherein:

the diamagnetic core is a material from the group consisting of gold, silver, copper, and platinum;

the magnetic material is a material from the group consisting of iron and cobalt and platinum alloys containing iron and/or cobalt;

the passivating layer is a material from the group consisting of gold, silver, platinum, and copper, and alloys containing these materials.

¹³~~27~~. (currently amended) The invention nanocomposite of claim ~~14~~, wherein the nanocomposite is annealed.

¹⁵~~28~~. (currently amended) The invention nanocomposite of claim ~~27~~, wherein the nanocomposite is annealed at a temperature of about 300 K.

29. (cancelled).

² ~~30~~. (new) The nanocomposite of claim ~~14~~, wherein:

the layer of magnetic material is thin.

- ⁴
~~31~~. (new) The nanocomposite of claim ³~~15~~, wherein:
the layer of magnetic material is thin.
- ⁵
~~6~~ ~~32~~. (new) The nanocomposite of claim ~~16~~, wherein:
the layer of magnetic material is thin.
- ⁷
~~8~~ ~~33~~. (new) The nanocomposite of claim ~~17~~, wherein:
the layer of magnetic material is thin.
- ⁹
~~10~~ ~~34~~. (new) The nanocomposite of claim ~~18~~, wherein:
the layer of magnetic material is thin.
- ¹⁷
~~18~~ ~~35~~. (new) The ferrofluids of claim ~~19~~, wherein:
the layer of magnetic material is thin.
- ¹⁹
~~20~~ ~~36~~. (new) The granular GMR materials of claim ~~20~~, wherein:
the layer of magnetic material is thin.
- ²
~~2~~ ~~37~~. (new) The inductor materials of claim ~~21~~, wherein:
the layer of magnetic material is thin.
- ²³
~~24~~ ~~38~~. (new) The storage media of claim ~~22~~, wherein:
the layer of magnetic material is thin.
- ²⁵
~~26~~ ~~39~~. (new) The giant magnetoresistance sensors of claim ~~23~~, wherein:
the layer of magnetic material is thin.
- ²⁷
~~28~~ ~~40~~. (new) The directed drug delivery agents of claim ~~24~~, wherein:
the layer of magnetic material is thin.
- ²⁹
~~30~~ ~~41~~. (new) The agents of claim ~~25~~, wherein:
the layer of magnetic material is thin.
- ¹¹
~~12~~ ~~42~~. (new) The nanocomposite of claim ~~26~~, wherein:
the layer of magnetic material is thin.

¹⁴
~~43~~ (new) The nanocomposite of claim ¹³~~27~~, wherein:

the layer of magnetic material is thin.

¹⁶
~~44~~ (new) The nanocomposite of claim ¹⁵~~28~~, wherein:

the layer of magnetic material is thin.